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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/525,459	07/05/2005	Mohammad Jamal El-Hibri	266280US55X PCT	3847
22850	7590	06/27/2008		
OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			EXAMINER NGUYEN, VU ANH	
			ART UNIT 4171	PAPER NUMBER
			NOTIFICATION DATE 06/27/2008	DELIVERY MODE ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/525,459	Applicant(s) EL-HIBRI, MOHAMMAD JAMAL	
	Examiner Vu Nguyen	Art Unit 4171	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 35-59 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 35-59 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>04/06/2005, 09/10/2007</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. Claims 35-59 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hallden-Abberton et al. (U.S. 5,344,868) in view of van den Berg et al. (U.S. 6,197,898).

Regarding claims 35-42 and 55-59:

4. Claim 35 recites a polymer composition comprising glass and, as sole polymer components, at least one aromatic polycondensation polymer comprising sulfone, ketone, imide, or carbonate groups, and at least one phenoxy polymer. Claim 36 recites a polymer composition comprising glass and at least one aromatic polycondensation polymer comprising sulfone, ketone, imide, or carbonate groups, and at least one

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phenoxy polymer, wherein said polymer composition is substantially free of polyamide.

Claims 37 and 38 specify the aromatic polycondensation polymer in claims 35 and 36, respectively, to be selected from polyarylethersulfones, polyaryletherketones, polycarbonates, polyetherimides, and copolymers thereof. Claims 39 and 40 specify the aromatic polycondensation polymer in claims 37 and 38, respectively, to be a polyarylethersulfone selected from polysulfone, polyphenylsulfone, polyethersulfone, and polyetherethersulfone, and copolymers thereof. Claims 41 and 42 specify the polyarylethersulfone in claims 39 and 40, respectively, to be polysulfone. Claims 55-58 pertain to a method of increasing the strength properties of glass-reinforced polymer composition using the composition as recited in claims 36 and 40, wherein the glass is specified as glass fiber (Claim 58), and wherein the method comprises blending the components (Claim 55) and that the blending comprises melt compounding (Claim 56). Claim 59 recites a method of forming a molded article using the polymer composition of claim 36.

5. Corresponding to the limitations set forth in these claims, Hallden-Abberton et al. (Hallden-Abberton, hereafter) teaches a polymer composition comprising polyglutarimide, a phenoxy polymer, and glass (Claims 1 & 2). It is noted that the disclosed polymer composition is substantially free of polyamide. The glass is specified as glass fiber (Claim 3). The disclosed polymer composition is designed to increase toughness (col. 5, lines 43-48). Also disclosed is a method of forming an article by blending, melt compounding, and molding (col. 5, lines 14-25).

Regarding claims 43-54:

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6. Regarding claims 43-46, claim 43 and 44 specify the phenoxy polymer in the polymer compositions of claims 35 and 36 to be a bisphenol phenoxy polymer, which is further narrowed to 4,4'-isopropylidenediphenol phenoxy polymer in Claims 45 and 46, respectively. The phenoxy polymer disclosed by Hallden-Abberton is a product of a copolymerization of epichlorohydrine and bisphenol A (Claim 7). In other words, the disclosed phenoxy polymer is a bisphenol phenoxy polymer and, more specifically, a 4,4'-isopropylidenediphenol phenoxy polymer because bisphenol A is a 4,4'-isopropylidenediphenol.

7. Claims 47 and 48 depend on claims 35 and 36, respectively, and specify an amount of the phenoxy polymer of 2-15 wt% relative to the respective polymer compositions. The disclosed polymer composition comprises 0.5-20 wt% of a phenoxy polymer (Claim 1).

8. Claims 49 and 50 depend on claims 35 and 36, respectively, and specify an amount of the glass of 10-50 wt% relative to the respective polymer compositions. The disclosed polymer composition also comprises 10-50 wt% of glass (Claims 1 & 2).

9. Claims 51 and 52 depend on claims 35 and 36, respectively, and specify the glass to be a glass fiber. The disclosed glass is a glass fiber (Claim 3).

10. Claims 53 and 54 depend on claims 35 and 36, respectively, and recite an article comprising the respective compositions, wherein said article is an injection molded article, an extruded article, a thermoformed article, or a blow-molded article. The disclosed polymer composition is processed into injection molded article (col. 5, lines 19-20).

11. Clearly, the prior art teaches all the limitations set forth in the claims with one exception: it fails to teach an **aromatic** polycondensation polymer having a sulfone, ketone, imide, or carbonate group.

12. van den Berg et al. teaches a polymer composition comprising a thermoplastic polymer, and epoxy resin, and glass (col. 4, lines 1-3; col. 7, line 22). The thermoplastic polymer includes **aromatic** polycarbonates, **aromatic** polysulfones, polyethersulfones, and polyetherimides (col. 8, lines 9-12). The epoxy resin includes the condensation product of epichlorohydrine and bisphenol A (col. 8, lines 66-67). It is also disclosed that **[Motivation]** the selected thermoplastic polymers afford high melting point or glass-transition temperature and facilitate article processing via molding and shaping (col. 8, lines 5-8).

13. In light of the teachings by van den Berg and considering that both disclosures by Hallden-Abberton and van den Berg deal with a glass-reinforced polymer composition comprising a polyimide, an epoxy resin made of polymerization of epichlorohydrine with bisphenol A, and glass, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to replace the non-aromatic polyimide taught by Hallden-Abberton with the aromatic polycondensation polymers taught by van den Berg so as to achieve the benefits as taught by van den Berg (See also van den Berg: col. 2, lines 55-67).

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vu Nguyen whose telephone number is (571)270-5454. The examiner can normally be reached on M-F 7:30-5:00 (Alternating Fridays).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, D. Lawrence Tarazano can be reached on 571-272-1515. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Ling-Siu Choi/
Primary Examiner, Art Unit 1796

Vu Nguyen
Examiner
Art Unit 4171